#### Commercial Technologies for Maintenance Activities (CTMA)



# The Commercial Technologies for Maintenance Activities (CTMA) Program

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## NCMS Background

- Established 1986
  - Not-for-profit cooperative research corporation
  - National Cooperative Research Act 1984
- Mission
  - Make manufacturers in North American more globally competitive
  - Enhance national security
- Industry driven
- Initial funding
  - National Machine Tool Builders Association (now AMT), DoD, State of Michigan



# Who We Are **LCU7**

**Electronics** 

#### ...a diverse array of industries

**Heavy Equipment** 



**Controls** 



MOTOROLA

Computers



#### Raytheon







**Software** 





**Aircraft** 



**Pharmaceuticals** 







**Bearings** 







Food





**Aerospace** 





**Automotive** 



**Communications** 



Sensors



#### Who We Are:

- 35 people with impressive R&D collaboration skills ...
  - Technical/Engineering in a wide variety of disciplines
  - Finance/Accounting, including DoD Certified Systems
  - Information Access and Retrieval
  - Government Relations/Liaison
  - Communications/Design
  - Government and Private Sector Contracting
  - Information Systems Specialists
- Located in Ann Arbor, Michigan, and Washington, DC
- With NO laboratory facilities
- Have managed over \$500 Million of Collaborative Manufacturing R&D Projects



#### What We Do:

#### - Industry Collaborative Projects

**A Typical NCMS CTMA Project:** Company B \$350K in-kind **Company A** \$100K reimbursement **Company C** \$150K in-kind \$100K cash \$1,500,000 R&D **Project Management** Services **Project Contractor X Company D** \$100K cash Sub-Contractor Y \$400K in-kind \$300K reimbursement

## **CTMA Program Mission**

- Identify, form, launch and deploy new projects coupling the needs and strengths of commercial industry with the DoD maintenance and repair facilities.
- Focus on reducing overall costs.



## Why Would Industry Participate?

- DoD facilities offer base for technology demonstrations and piloting
- Leveraging of resources through collaboration
- Funding for high risk emerging technology solutions



## CTMA Program Overview

- Cooperative Agreement between NCMS and the Office of the Secretary of Defense
- Administered by Office of Maintenance Programs, Resources and Planning
- Multi-year Funding Agreement



## **CTMA Cooperative Agreement Highlights**

- Funding for Direct Contract support to develop and demonstrate technologies
- Focus on cost reduction within DoD Organic Maintenance Activities (Depot Level)
- Requires a \$2 to \$1 Industry cost share on all technology development funding
- Provides for property disposition, IPR protection, and collaborative umbrella for all participants



#### Who Participates (DoD facilities)

- Tobyhanna AD
- Corpus Christi AD
- Red River AD
- Anniston AD
- Norfolk NSY
- Portsmouth NSY
- Pearl Harbor NSY
- Puget Sound NSY
- MC3 Albany
- MC3 Barstow
- Davis-Monthan
- Aviation Classification Repair Depots
  - Groton, CT; Springfield, MO
- Pope AFB, NC
- Langley AFB, VA

- NADEP North Island
- NADEP Jacksonville
- NADEP Cherry Point
- OC-ALC
- Ogden ALC
- WR-ALC
- Trident Kings Bay
- Camp Pendleton
- Philadelphia Foundry
- Navy Spawar
- DMEA
- Ft. Hood, TX
- Fort Rucker, AL
- Aviation/Ship Interm. Maint. Fac.
  - Norfolk; San Diego
- NWSC, Crane, IN



10

## **CTMA Project Launch Criteria**

- Begins with a concept (~5 pages long)
- Joint Industry/DoD interest and needs
- Cost/Benefits summary sketched out
- Participant roles defined
- Identify industry champion
- Support within Depot for care and custody of program deliverables
- Submission of concept to OSD
- 10 day turnaround for approval...



11

## **Elements of the Concept Paper**

- Concept Paper: Title
- Statement of Problem
- **Proposed Solution**
- Deliverables (A final report is not sufficient. Projects should deliver a product or service to the repair facility.)
- Benefits
  - What quantifiable benefits are to be expected from this project. (we need to generate an ROI for the project)
  - What performance measurements are going to be undertaken during the project
- Anticipated Participants (DoD, Industry Partners, other government or academic facilities)
- **Estimated Cost and Duration** 
  - **Total Cost Estimate:**
  - Cost Sharing Estimates include: All projects require a 2:1 industry cost-share component, which can include materials, equipment usage, staff hours, travel, background technology being given to the project, testing, and most any effort that is used to achieve the project goals.
  - Requested Contract Funding:



12

#### ATE Program Translator Project CTMA PROJECT FORMATION REQUIREMENTS

| REQUIRED ITEM   | Participants |            |                  |               |                                     |               |      |
|---|--------------|------------|------------------|---------------|-------------------------------------|---------------|------|
|   | Depot<br>1   | Depot<br>2 | Industry<br>Lead | Industry<br>2 | Industry<br>3                       | Industry<br>4 | NCMS |
| Concept Paper, 5-7 pages  | S            | S          | Р                | S             | S                                   | S             | S    |
| Project Title   | S            | S          | Р                | S             | S                                   | S             | S    |
| Problem Statement   | S            | S          | Р                | S             | S                                   | S             | S    |
| Proposed Solution   | S            | S          | Р                | S             | S                                   | S             | S    |
| Anticipated Participants  | Р            | S          | Р                | S             | S                                   | S             | Р    |
| SOW / Proposal: Key Industry Effort/Tasks & Technical POC       | S            | S          | Р                | Р             | Р                                   | Р             | S    |
| Expected Deliverables   | Р            | Р          | Р                | S             | S                                   | S             | S    |
| Anticipated Schedule/Duration                                   | S            | S          | Р                | S             | S                                   | S             | S    |
| Depot Cost/Benefit Estimate                                     | Р            | Р          | S                | N/A           | N/A                                 | N/A           | S    |
| Depot Letters of Endorsement from CO                            | Р            | Р          | S                | N/A           | N/A                                 | N/A           | S    |
| Industry Cost Summary (and validation by NCMS)                  | N/A          | N/A        | Р                | Р             | Р                                   | Р             | S    |
| Estimated Cost Share  | N/A          | N/A        | Р                | Р             | Р                                   | Р             | S    |
| Requested Contract Funding                                      | N/A          | N/A        | Р                | Р             | Р                                   | Р             | S    |
| Total Project Cost Rollup                                       | N/A          | N/A        | N/A              | N/A           | N/A                                 | N/A           | Р    |
| NCMS Submits to DoD OSD   | N/A          | N/A        | N/A              | N/A           | N/A                                 | N/A           | Р    |
| DoD OSD Approval  | N/A          | N/A        | N/A              | N/A           | N/A                                 | N/A           | S    |
| Post DoD Approval:  |              |            |                  |               |                                     |               |      |
| Statement of Work Finalized (what-when-who)                     | S            | S          | Р                | S             | S                                   | S             | S    |
| Industry Points of Contact Info                                 | N/A          | N/A        | Р                | Р             | Р                                   | Р             | S    |
| Generate the Collaborative Agreements                           | N/A          | N/A        | N/A              | N/A           | N/A                                 | N/A           | Р    |
| NCMS Membership   | N/A          | N/A        | AT AWARD         | AT AWARD      | AT AWARD                            | AT AWARD      | N/A  |
| Contract Agreement(s) Signatures                                | N/A          | N/A        | Р                | Р             | Р                                   | Р             | Р    |
| NOTES:  |              |            |                  |               | KEY:                                |               |      |
| Two or more depots required (cross services is preferred)       |              |            |                  |               | P = Primary provider responsibility |               |      |
| Two or more industry participants required (a collaboration)    |              |            |                  |               | S = Supporting responsibility       |               |      |
| A minimum ratio of 2:1 for industry cost share to contract cost |              |            |                  |               | N/A = Not applicable                |               |      |

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## **Getting Involved and Staying Informed**

- Project Ideas
  - Submit directly to NCMS Staff
  - Respond via website or e-mail (http://ctma.ncms.org)
- CTMA Website http://ctma.ncms.org
- The CTMA Connector Newsletter
- Annual Maintenance Activities Symposium
- NCMS Executive Director:
   Dr. Chuck Ryan
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## 2004 CTMA Symposium Stone Mountain, GA 3/30 - 4/02 Tentative

